

SENSATIONAL SEASONINGS

Idaho Child Nutrition Programs





Objectives

- Explore characteristics of herbs, spices and seasonings
- Identify flavor trends that are growing in popularity
- Review sodium requirements for school meals and why they exist
- Identify sources of sodium in food
- Fun recipes for Child Nutrition Programs that use herbs, spices and seasonings foods



Professional Standards

- **Nutrition (1000)**
 - General Nutrition (1300)
 - Understand general nutrition concepts that relate to school meals, such as whole grains, sodium, etc. (1320)
- **Operations (2000)**
 - Food Production (2100)
 - Develop culinary skills necessary for school meal preparation (2130)

Sense of Taste

- Sweet (Sugars)
- Sour (Acidity)
- Salty (Sodium)
- Bitter
- Umami (Savory, meaty)
- Not taste buds
 - Pungency (spicy, peppery, “hot”)
 - Coolness (minty)





About Umami

- Taste buds detect Glutamate
- Different taste than salty
- Glutamate-rich foods help reduced sodium foods taste better
 - Meat, poultry, fish, broth/stock, shellfish, egg yolk, tomatoes, dried mushrooms, potatoes, sweet potatoes, carrots, Chinese cabbage, spinach, celery, fermented foods, cheese, (especially parmesan cheese)



Herbs, Spices and Seasonings

Herbs	Spices	Seasonings
Leaves, stems and soft portions of plants	Bark, roots, seeds, and fruit	Aromatic vegetables, juices, vinegars, flavored oils, zests
Fresh, Dried, Ground	Usually dried, ground	Fresh, dried, granulated, liquid
Oregano Thyme Rosemary Parsley Basil Dill	Cinnamon Pepper Ginger Paprika Cayenne (Red Pepper)	Mirepoix Infused oils or vinegars Citrus zest Fruit juices



HERBS

Herbs

- Herbs come from the leaves, stems and soft portions of plants



Name that Herb

- Basil
- Cilantro
- Parsley
- Mint
- Oregano
- Sage
- Chives
- Dill
- Tarragon
- Rosemary
- Lavender
- Thyme





Flavoring with Herbs

- Herbs lift the flavor of food
- Fresh, dried and frozen
- Fresh herbs should be used in dishes shortly after they are harvested
- Added at the end to hot food
- Fresh herbs should be added early to cold food
- Dried herbs should be added early

1 Tb fresh = 1 tsp dried = 1/4 to 1/2 tsp ground

Storing Herbs

Fresh

- Rinse with cold running water and drain
- Wrap herbs in moist paper towels and place in plastic bag
- Store in the refrigerator for up to 4-7 days



Dried

- Usually at their best flavor for 3-6 months after purchase
- Store in airtight container in a dark, cool and dry place

Two Ways to Freeze Herbs

Freeze Individually

1. Rinse and air dry herbs
2. Spread in a single layer on baking sheet
3. Freeze
4. Place in sealed containers (plastic bags or glass jars with tight-fitting lids)

Freeze in Ice Trays

1. Fill ice tray cubes $\frac{3}{4}$ full of water
2. Rinse herbs and air dry
3. Chop herbs
4. Place in ice trays
5. Use herb cubes in soups, stews and other dishes





SPICES

Spices

- Spices come from roots, buds, flowers, bark, seeds and fruits



Name that Spice

- Cinnamon
- Ginger
- Nutmeg
- Paprika
- Black Pepper
- Cumin
- Cardamom
- Mustard
- All Spice





Flavoring with Spices

- It is a good idea to familiarize yourself with spices before adding them to dishes
- Ground spices lose their flavor after six months of purchase
- Stales spices can develop a bitter flavor – discard them
- Add spices near the end of cooking hot foods
- Add spices early in cold foods to all flavors to blend
- Be careful with spices that have “heat” (pungency) that may intensify over time– such as hot peppers, pepper, or ginger

Storage of Dry Spices

- Dark
- Cool
- Dry
- Airtight





Freshness

- Replace every 6- 12 months.
- Is it still effective?
 - Crush a small amount— does it have an immediate rich full aroma? If not, it may no longer be an effective seasoning.

Adjusting Recipe Yield

- Increasing recipe from 50-100 servings
 - Double herbs and spices
- Increase recipe *another* 100 servings
 - Increase herbs and spices by 25%
 - Test Recipe for taste and quality





AROMATICS AND ACIDS

Cooking with Aromatic Vegetables

- Mirepoix
 - Onions, carrots, and celery
 - Ratio 2:1:1 (onions, carrots, celery)
 - Cook onions first until slightly translucent, then add carrots, and finally celery
- Aromatics go into the pot first so distinctive flavors and aromas can infuse everything else that will be added to the dish



Other Flavor Combinations

- **Cajun Holy Trinity**

- Onion
- bell pepper
- celery

- **Spanish Sofrito**

- Garlic,
- onion,
- peppers
- Optional- tomatoes

- **Asian**

- (best with shorter cooking times)
- ginger
- garlic
- onion/green onion
- Optional- hot pepper



Cooking with Acids

- Acids offer bright, tangy, refreshing, and contrasting flavors to foods
 - Citrus juices
 - Vinegars
 - Vinaigrettes
- Acids create a salty flavor when added to food before cooking
 - Marinated food



Most Effective Seasonings for Reducing Salt

- Black Pepper
- Garlic Powder
- Curry Powder
- Cumin
- Dill Seed
- Basil
- Ginger
- Coriander
- Onion
- Lemon
- Vinegar



Flavor Trends

- **Heat plus Sweet**
 - Sriracha (Peppers, vinegar, sugar)
 - Note: Be aware of high sodium condiments, such as hot sauce
- **Sour/ Tangy**
 - Vinegars
- **Umami (“Savory”)**
 - Rich broths
 - Mushrooms/ Tomatoes/sweet potatoes/nori (dried seaweed)
- **Smoked Spices**
 - Chipotle
 - Smoked Paprika
- **Global Flavors: Middle Eastern/North Africa, Asian**
 - Hummus
 - Harissa (Hot pepper and spice blend)
 - Shawarma spiced meats (Middle eastern spice blend)
 - Ginger, Ginger-garlic
 - Shichimi Togarashi (Japanese 7 spice– peppers + citrus)
- **Pumpkin Spice**
 - Cinnamon, ginger, nutmeg, allspice





FLAVOR STATIONS IN SCHOOLS

Spotlighting Seasoning Blends in Schools is Trending

- **See what Payette School District has been up to!**
- **Sodium Levels for Lunch after the seasoning blends were added to the menu**

Grade Level	Current Menu Sodium Levels	USDA Requirement
High School	1278 mg	<1420 mg
Middle School	1238 mg	<1360 mg
4 th – 5 th Grade	915 mg	<1230 mg
K – 3 rd Grade	897 mg	<1230 mg





Payette School's House Spice Blends

Blends are all equal parts of seasonings

- **Basic Blend:** paprika, black pepper, onion powder, garlic powder, coriander and oregano
- **Mexican Blend:** chili powder, cumin, garlic powder, coriander and oregano
- **Italian Blend:** basil, marjoram, garlic powder, oregano, rosemary, thyme, sage and black pepper
- **Indian Blend:** turmeric, cumin, cardamom, cinnamon, ground mustard, coriander and black pepper



Benefits of Spice Blends in Schools

- Spice blends are fun for students and give them a choice for different flavors
- They are a great way to reduce sodium in meals
- It is a good idea to get students involved with naming the spice blends different names



UNDERSTANDING SODIUM



What is sodium?

- Sodium is an essential mineral for the body
 - Electrolytes - sodium, chloride and potassium
 - Helps maintain the body's normal fluid balance
 - Our bodies need about 500 mg/day
- Salt is sodium chloride
- Sodium is found naturally in some foods in small amounts and is added to others

Why worry about sodium?



Consequences of High Blood Pressure

High blood pressure (HBP) can injure or kill you. When high blood pressure is uncontrolled, it can lead to:

- STROKE**
HBP damages arteries that burst or clog more easily.
77% of people who have a first stroke have HBP.
HBP increases your stroke risk by four to six times.
- HEART FAILURE**
HBP can cause the heart to enlarge and fail to supply blood to the body.
75% of people with congestive heart failure have HBP.
- ERECTILE DYSFUNCTION**
HBP leads to erectile dysfunction because of reduced blood flow throughout the body.
- VISION LOSS**
HBP can strain the vessels in the eyes.
- HEART ATTACK**
HBP damages arteries that can become blocked.
69% of people who have a first heart attack have HBP.
- KIDNEY DISEASE/FAILURE**
HBP can cause arteries around the kidneys to narrow, weaken or harden so the kidneys lose their ability to filter blood.
HBP is the second-leading cause of kidney failure.

These conditions can happen over several years, but they can be prevented by controlling blood pressure.

Did You Know?

- At 50, total life expectancy is five years longer for people with normal blood pressure.
- The estimated cost of HBP in 2010 (the most-recent statistics available) is \$46.4 billion.

For more information
heart.org/bloodpressure

Check. Change. Control.™

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But these are KIDS!

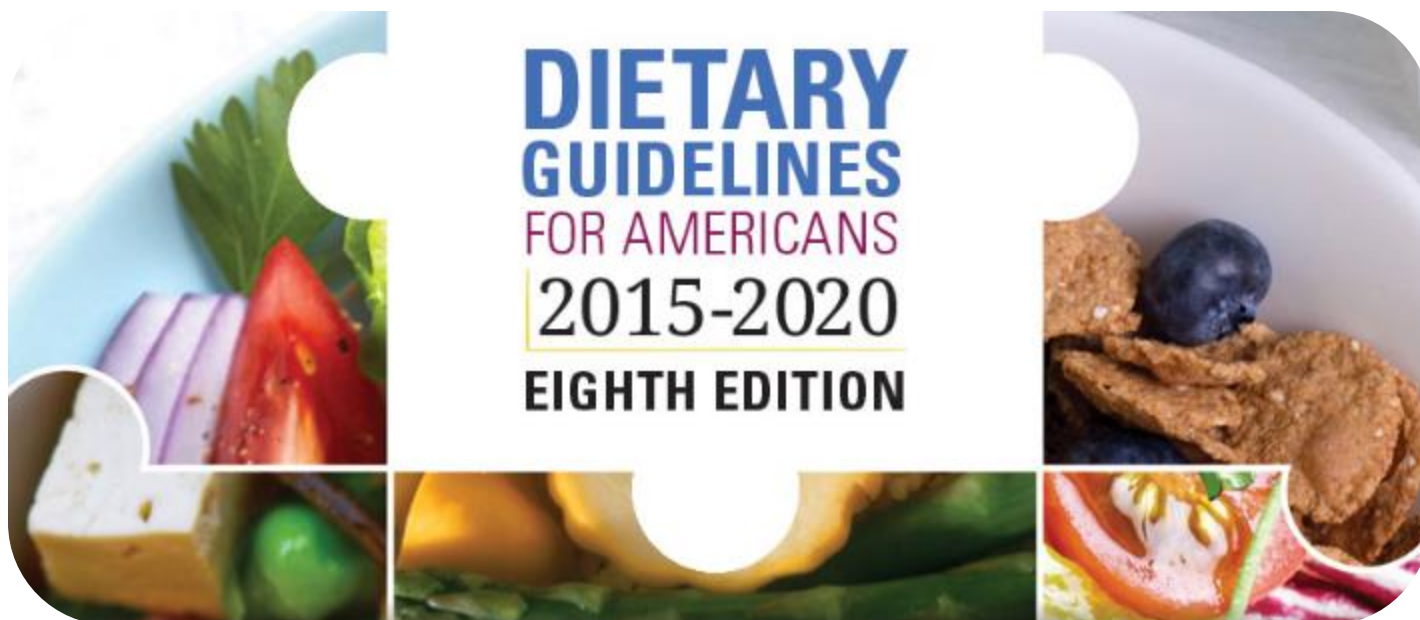


1 in 6

1 in 6 children has raised blood pressure, which can be lowered in part by a healthy diet, including less sodium.



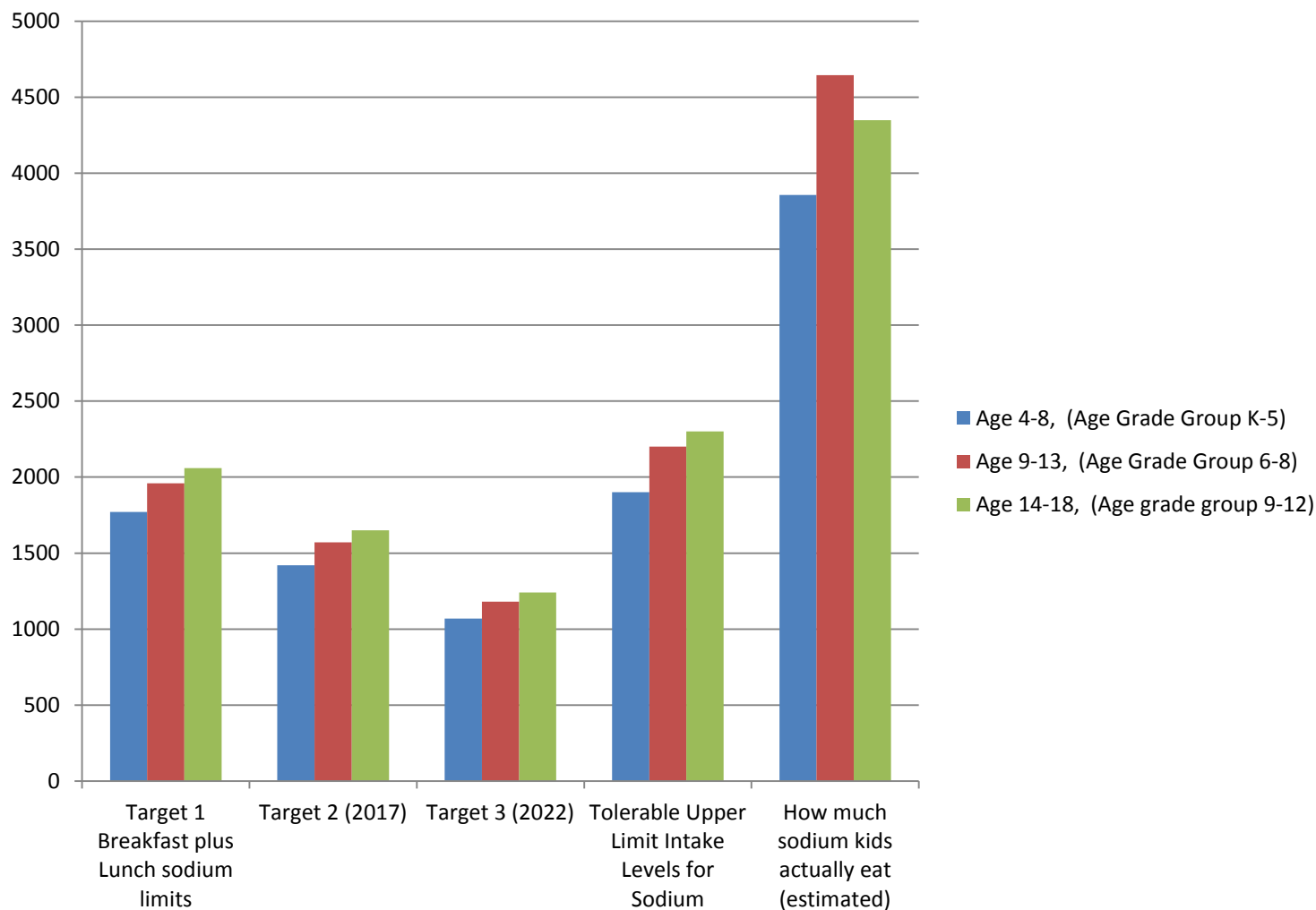
Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™



Age	1-3 Years	4-8 Years	9-13 Years	25-51+ Years
Sodium, mg	1,500	1,900	2,200	2,300

What does 2,300 mg sodium look like?
~About 1 teaspoon of salt

A Closer Look at School Meals





United States Department of Agriculture



WHAT YOU SHOULD KNOW...

The sodium targets for school meals help kids eat less sodium while still getting the amount they need to stay healthy.

Lowering sodium in children's diets today can help prevent heart disease tomorrow.



FOR SCHOOL NUTRITION PROFESSIONALS

WHAT'S SHAKING?

creative ways to

BOOST FLAVOR WITH LESS SODIUM



TOP SOURCES OF SODIUM FOR CHILDREN

- pizza
- bread
- cheese
- lunch meats
- chips

SCHOOLS ARE MAKING A DIFFERENCE!

Before Updated Nutrition Standards (1,650 mg)

After (1,420 mg)

(Depicts sodium content data for high schools.)

School lunches now have 230 mg less sodium.



90%

of children in the United States consume too much sodium.

HOW ^{YOU} CAN REDUCE SODIUM *in* SCHOOL MEALS



1 USE HERBS & SPICES

Feature "Flavor Stations" in your cafeteria where students can add seasonings (without added sodium) that appeal to their tastes.



2 EXPLORE NEW RECIPES

Find large quantity recipes for school food service on the new recipe Web site, <http://www.WhatsCooking.fns.usda.gov>.



3 ORDER USDA FOODS

Stretch your budget and serve nutritious foods by planning your school meals around no-salt-added or low-sodium USDA Foods.



4 CONTACT VENDORS

Write bid specs that request lower sodium options. Depending on the brand, a food item may have different amounts of sodium.



Check out all of our resources at the "What's Shaking?" Web site:
[HTTP://HEALTHYMEALS.NAL.USDA.GOV/WHATSSHAKING](http://HEALTHYMEALS.NAL.USDA.GOV/WHATSSHAKING)



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http://www.fns.usda.gov/sites/default/files/SNDA-IV_Vol1Pt1_0.pdf

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REDUCING SODIUM IN YOUR SCHOOL MENUS

Start by Setting Goals



1. Identify a strategy to lower the sodium content of a food you serve
2. Write a goal to work on
 - *Be specific*
 - *How can you measure the reduced sodium content of the food?*
 - *How will you ensure the low sodium food is appealing to students?*
 - *When will you accomplish the goal?*



Means for Reducing Sodium

- Cook from scratch/speed scratch
- Cooking Techniques can add flavor (roasting, sautéing, broiling)
- Use USDA foods
- No added salt and low-sodium canned goods
- Homemade vinegar & citrus salad dressings
- Soups with homemade or low-sodium broth
- Mustards/honey mustards

Benefit from Homemade Sauces

- Delicious sauces, that are full of flavor can be helpful in decreasing sodium
- Basil Honey Mustard
 - Try this dressing from the *Chef Designed School Breakfast Recipe, Green Eggs and Ham Biscuit*
<http://www.sde.idaho.gov/cnp/hne/chef.html>





USDA Recipes <300 mg

<http://www.nfsmi.org/Templates/TemplateDefault.aspx?qs=cELEPTewMiZpc01ncj10cnVI>

- Beef stir-fry
- Beef taco
- Beef vegetable soup
- Chicken ala king
- Chicken fajitas
- Chicken noodle soup
- Chicken potpie
- Chicken rice soup
- Chicken salad
- Chicken taco
- Chicken vegetable soup
- Chile con carne
- Country fried steak
- Cream of chicken soup
- Ground beef and Spanish rice
- Honey lemon chicken
- Minestrone
- Pork stir-fry
- Stagecoach spaghetti
- Thick vegetable soup

USDA Recipes <200 mg

<http://www.nfsmi.org/Templates/TemplateDefault.aspx?qs=cELEPTewMiZpc01ncj10cnVI>

- Baked Cajun fish
- Baked fish Scandia
- Chicken & noodles
- Chicken stir-fry
- Crispy chicken salad
- Ground beef and macaroni (Mex)
- Meatballs
- Meatloaf
- Oven fried chicken
- Salisbury steak
- Vegetable Stromboli





Other Recipe Resources

- Vermont

- New School Cuisine: Nutritious and Seasonal Recipes for School Cooks by School Cooks
 - <http://vtfeed.org/resource-library>

- Kansas


- Healthier Kansas Menus
 - http://www.kn-eat.org/SNP/SNP_Menus/SNP_Resources_Healthier_Kansas_Menus.htm

- Idaho Dairy Council

- Breakfast School Food Service Recipes
 - <http://idahodairy.com/product-category/school-foodservice/page/3/>

- Institute of Child Nutrition

- Whole Grain Recipes
 - <http://www.theicn.org/ResourceOverview.aspx?ID=377>



These recipes are great for cooking with herbs, spices, and seasonings:

- Tuscan Smoked Turkey and Bean Soup
- Harvest Stew
- Chicken Curry Casserole
- Mediterranean Quinoa Salad

<https://healthymeals.nal.usda.gov/recipes-healthy-kids-cookbooks/recipes-healthy-kids-cookbooks-cookbook-schools>

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